

ABSTRACT

A fan has an air conveying conduit (16) and a fan wheel (22) arranged therein, which wheel is rotatable about a central axis (25) and is formed with a central hub (20; 120) having an outer periphery (27) on which fan blades (26) are mounted. These extend with their radially outer rims (40) as far as a surface (17) that is substantially coaxial with the central axis (25) and delimits the air conveying conduit (16) externally. The blades (26) have a profile similar to an airfoil profile. A flow element (42) is provided along the radial outer edge (40) of a fan blade and serves as an obstacle to a compensating flow proceeding around that radial outer edge (40) from the delivery side to the intake side, and likewise has, in cross section, an airfoil profile. Adjacent the front edge (28) and rear edge (36) of a blade (26), it has substantially the same outline as the adjacent part of the associated blade (26), and in a middle region (48) between the front and back edge is wider, by an approximately constant amount, than the adjacent part of the blade (26).

CLEAN ABST.-OCT. 2005